



ЧЕТЫРНАДЦАТЫЙ
МОСКОВСКИЙ
МЕЖДУНАРОДНЫЙ
СИМПОЗИУМ
ПО ИССЛЕДОВАНИЯМ
СОЛНЕЧНОЙ СИСТЕМЫ

9-13 ОКТЯБРЯ 2023

ИНСТИТУТ
КОСМИЧЕСКИХ
ИССЛЕДОВАНИЙ
МОСКВА

THE FOURTEENTH
MOSCOW
SOLAR SYSTEM
SYMPOSIUM

9-13 OCTOBER 2023

SPACE RESEARCH
INSTITUTE
MOSCOW

9 OCTOBER:
SESSION MARS

10 OCTOBER:
SESSION MOON AND MERCURY

11 OCTOBER:
SESSION MOON AND MERCURY
SESSION VENUS

12 OCTOBER:
SESSION SMALL BODIES
(INCLUDING COSMIC DUST)

13 OCTOBER:
SESSION EXTRASOLAR PLANETS
SESSION ASTROBIOLOGY

14M-S³ SCIENTIFIC PROGRAM

MONDAY, 9 OCTOBER 2023

11.00–19.00



MARS SESSION

Convener: **Oleg KORABLEV**
conference hall, second floor

11.00–11:20	Alina MUKHAMEDZHANOVA	Valley topography of northeastern Terra Cimmeria on Mars	14MS3-MS-01
11.20–11.40	Yaowen LUO	Constraint on paleo hydrological activities from deltas on Mars	14MS3-MS-02

11.40–12.00 COFFEE-BREAK

12.00–12:20	Jun CHU et al	Deposits in the depression west to Eberswalde crater indicate a synchronous hydrogeological history of Holden and Eberswalde craters on Mars	14MS3-MS-03
12.20–12.40	Boris IVANOV	New craters on Mars: Updating after 2022 catalog	14MS3-MS-04
12.40–13.00	Elena PODOBNAYA et al	Some statistics on fresh Martian clusters	14MS3-MS-05

13.00–14.00 LUNCH

14.00–14.20	Zhongchen WU et al	The gas-solid chemical reaction during Martian dust events	14MS3-MS-06
14.20–14.40	Anna FEDOROVA et al	Distribution of atmospheric aerosols during the 2007 Mars dust storm by solar infrared occultation on Mars-Express	14MS3-MS-07
14.40–15.00	Ekaterina STARICHENKO et al	Two years of gravity waves observation in the Martian atmosphere by the ACS experiment on board the ExoMars/TGO	14MS3-MS-08
15.00–15.20	Pavel VLASOV et al	Martian global water vapor column abundance from ACS TIRVIM nadir observations onboard ExoMars TGO	14MS3-MS-09
15.20–15.40	Alina MERKULOVA and A.K. PAVLOV	Possible explanations for seasonal variations of oxygen in the Martian atmosphere	14MS3-MS-10
15.40–16.00	Dominik BELOUSOV et al	Possible source of perchlorates on Mars and Europa	14MS3-MS-11

16.00–16.20 COFFEE-BREAK

16.20–16.40	Anton SALNIKOV et al	Analytical continuation of the magnetic field of Mars from satellite data using a combined approach	14MS3-MS-12
16.40–17.00	Jinsong PING et al	Mars electron density inversion based on Tianwen-1 radio occultation experiment	14MS3-MS-13
17.00–17.20	Egor KULIK and Tamara GUDKOVA	Effects of anelasticity on Chandler period of Mars	14MS3-MS-14

17.20–17.40	Jordanka SEMKOVA et al	New results from the radiation investigations aboard ExoMars TGO in 2018-2023	14MS3-MS-15
17.40–18.00	Elena KARPOVICH et al	A science Martian airplane: preliminary configurations and radiation loading analysis	14MS3-MS-16
18.00–19.00	POSTER SESSION, SESSION MARS 12 posters * 5 min		
18.00–18.05	Anatoly ZUBAREV et al	Photogrammetric procession of Mars 2020 Ingenuity data and subsequent obtaining of a 3D surface model	14MS3-MS-PS-01
18.05–18.10	Alexey BATOV and Tamara GUDKOVA	On correlation of non-hydrostatic stresses in the interior of Mars with the epicenters of marsquakes	14MS3-MS-PS-02
18.10–18.15	Sergei KULIKOV et al	Magnetic field observations at the surface of Mars: the influence of atmospheric/ionospheric phenomena and the interplanetary medium	14MS3-MS-PS-03
18.15–18.20	Oleg VAISBERG et al	Recurring magnetic structure in Martian dayside magnetopause	14MS3-MS-PS-04
18.20–18.25	Marina KUZMICHEVA and Boris IVANOV	Characteristic features of magnetic anomalies of impact craters on Earth: how they appear on terrestrial planets	14MS3-MS-PS-05
18.25–18.30	Anatoly MANUKIN et al	Improvement of the characteristics of the uniaxial seismometer	14MS3-MS-PS-06
18.30–18.35	Mohamad ABDELAAL et al	Exploring electromagnetic signatures of dust particles collisions: experimental setup and station construction for signal acquisition	14MS3-MS-PS-07
18.35–18.40	Vladimir OGIBALOV and G. M. SHVED	An improved model of radiative transfer for the NLTE problem in the NIR bands of CO ₂ and CO molecules in the daytime atmosphere of Mars. 3. An effect of aerosol radiation scattering on the vibrational state populations	14MS3-MS-PS-08
18.40–18.45	Vladimir OGIBALOV	Hierarchy of vibrational state sets for solving the NLTE radiative transfer problem in the IR CO ₂ bands in the Martian atmosphere	14MS3-MS-PS-09
18.45–18.50	Petr LYSENKO et al	On the role of methane and ammonia absorption in studying Jupiter's atmosphere	14MS3-MS-PS-10
18.50–18.55	Andrey KIRILLOV	Electronic kinetics of molecular nitrogen at the altitudes of Titan's middle atmosphere	14MS3-MS-PS-11
18.55–19.00	Nikolay KASATIKOV	Integrating IoT with space exploration: Improving Mars missions with Neural networks	14MS3-MS-PS-12
19.00–20.00	WELCOME PARTY		

10.00–19.45

2 MOON AND MERCURY SESSION

Conveners: Igor MITROFANOV, Maxim LITVAK
conference hall, second floor

MERCURY

10.00–10.20	Alexander KOZYREV et al	Three Mercury flybys: observations of neutron and gamma-ray fluxes by MGNS instrument onboard the ESA's BepiColombo mission	14MS3-MN-01
10.20–10.40	Alexander LAVRUKHIN et al	Determination of the optimal parameters of the Mercury's magnetosphere for the MESSENGER mission	14MS3-MN-02

THE STUDIES OF THE MOON AS CELESTIAL BODY

10.40–11.00	Alexander GUSEV et al	Geological exploration of the Moon VI: mineralogy, rheology, heat budget	14MS3-MN-03
11.00–11.20	Mikhail IVANOV et al	Thickness of volcanic materials in Mare Fecunditatis	14MS3-MN-04
11.20–11.40	Alexander BASILEVSKY et al	Study of the surface morphology of permanently shadowed floor of polar crater Shoemaker: Relative depth of small craters	14MS3-MN-05

11.40–12.00 COFFEE-BREAK

12.00–12.20	Alexander BASILEVSKY et al	Photogeological analysis of the tectonically deformed impact crater in the South Pole region of the Moon	14MS3-MN-06
12.20–12.40	Xing WANG and James HEAD	Evidence for extensive cryptomaria in the center of the South-Pole Aitken basin	14MS3-MN-07
12.40–13.00	Zifeng YUAN et al	Inversion of global lunar oxides using Chang'E-2 Lunar Microwave Sounder data	14MS3-MN-08

13.00–14.00 LUNCH

14.00–14.20	James HEAD and Mikhail IVANOV	Mare mesas in Mare Fecunditatis: characteristics of a newly documented class of mare volcanic feature	14MS3-MN-09
14.20–14.40	James HEAD et al	Ina shield volcano summit pit crater: forward-modeling major stages in its evolution and comparison with surface morphology and sequence	14MS3-MN-10
14.40–15.00	Maya DJACHKOVA et al	Studies of the floor of Zeeman lunar polar crater with LRO and Luna-25 data	14MS3-MN-11

15.00–15.20	Maxim LITVAK et al	The experiment LEND: 14 years observations of lunar neutron albedo	14MS3-MN-12
15.20–15.40	Ilia KUZNETSOV et al	Investigation of the cosmic dusty plasmas with dust monitoring instruments	14MS3-MN-13
15.40–16.00	Vladimir DUDCHENKO and Evgeny SLYUTA	A temperature distribution model in the lunar soil at the Polar Regions	14MS3-MN-14
16.00–16.20 COFFEE-BREAK			
THE EARTH BASED EXPERIMENTS AND STUDIES OF THE MOON			
16.20–16.40	Daniil MIRONOV et al	VI-LH1 – Lunar highlands simulant for large scale experiments	14MS3-MN-15
16.40–17.00	Yuri BONDARENKO et al	Earth-based radar observations of permanently shadowed regions on the lunar South Pole	14MS3-MN-16
17.00–17.20	Artem KRIVENKO et al	Features of isotopic fractionation of water ice during sublimation under lunar conditions	14MS3-MN-17
LUNAR EXPLORATION PERSPECTIVES			
17.20–17.40	Dmitry GOLOVIN et al	The gamma-ray spectroscopy of Rare Earth elements in lunar subsurface	14MS3-MN-18
17.20–18.00	Anton SANIN et al	On the neutron emission from the south polar region of the Moon	14MS3-MN-19
18.00–19.45 POSTER SESSION, SESSION MOON AND MERCURY			
21 posters * 5 min			
18.00–18.05	Alexander BASILEVSKY et al	Regional and local geology and Moon Mineralogy Mapper data analysis for the Luna 24 landing site	14MS3-MN-PS-01
18.05–18.10	Alexander KRASILNIKOV et al	Model stratigraphy in the Artemis landing sites region	14MS3-MN-PS-02
18.10–18.15	Mikhail IVANOV et al	Sources of materials in the Luna-16 sample	14MS3-MN-PS-03
18.15–18.20	Zhiguo MENG et al	New findings of surface deposits in cryptomare region revealed by CE-2 MRM data	14MS3-MN-PS-04
18.20–18.25	Xeniya KOCHUBEY and Mikhail IVANOV	Degradation of fresh-looking craters on the Moon	14MS3-MN-PS-05
18.25–18.30	Ekaterina GRISHAKINA et al	Absolute model age estimates of the Plaskett crater	14MS3-MN-PS-06
18.30–18.35	Michael SHPEKIN and V.S. SHISHKINA	The structure features of young impact craters in the area of “bulbous fields” on the Aitken crater floor	14MS3-MN-PS-07

18.35–18.40	Nadezhda CHUJKOVA et al	Dynamics of the Earth-Moon and Venus-Mercury systems: a comparative analysis	14MS3-MN-PS-08
18.40–18.45	Ekaterina KRONROD et al	Numerical simulation of the thermal evolution of the Moon. Consistency with the presence of a low-viscosity zone at the core-mantle boundary	14MS3-MN-PS-09
18.45–18.50	Jing YANG and Lianghui GUO	An omnidirectional filtering method for destriping lunar satellite gravity data	14MS3-MN-PS-10
18.50–18.55	Jinsong PING et al	To promote a joint space-time reference datum on the Moon	14MS3-MN-PS-11
18.55–19.00	Andrey SHUGAROV et al	Astrophysical UV-Optical-IR telescope for the International Lunar Research Station	14MS3-MN-PS-12
19.00–19.05	Ekaterina GRISHAKINA et al	Creating the map of the polar regions of the Moon	14MS3-MN-PS-13
19.05–19.10	Boris EPISHIN and Michael SHPEKIN	The situation in the lunar sky in the landing area of the Russian «Luna-25» station from August 2023 to August 2024	14MS3-MN-PS-14
19.10–19.15	Imant VINOGRADOV et al	Design of a compact multichannel diode laser spectrometer for the Luna-27 mission: challenges and achievements	14MS3-MN-PS-15
19.15–19.20	Alexander KOSOV et al	Luna-27 lander and Luna-26 orbiter navigation by means of Radio Beacon deployed on the Luna-27 lander	14MS3-MN-PS-16
19.20–19.25	Alexandra UVAROVA	Studying the suitability of the Kamchatka peninsula as natural testing site for lunar missions based on the properties of soils	14MS3-MN-PS-17
19.25–19.30	Mohamad ABDELAAL et al	Investigating high-voltage charging effects and substrate material on dust particle dynamics and electromagnetic signatures in a low-pressure conditions: lunar regolith analogue study	14MS3-MN-PS-18
19.30–19.35	Ivan AGAPKIN and Alexandra UVAROVA	Experimental research of the lunar soil-analogue VI-75 under negative temperature	14MS3-MN-PS-19
19.35–19.40	Egor SOROKIN et al	Thermal reduced Si and P in metallic iron nanospherules: experimental data	14MS3-MN-PS-20
19.40–19.45	Azariy BARENBAUM	New interpretation of “true polar wander” phenomenon: conclusions for terrestrial planets	14MS3-MN-PS-21

10.00–11.40

2

MOON AND MERCURY
SESSIONConveners: **Igor MITROFANOV, Maxim LITVAK**
conference hall, second floor

LUNAR EXPLORATION PERSPECTIVES

10.00–10.20	Anatoly ZUBAREV et al	Processing technique for the image data from Service Television Camera System - Luna (STS-L) at the landing stage	14MS3-MN-20
10.20–10.40	Huijuan WANG et al	Optimizing scientific objectives for the Lunar-based UV-Optical-IR telescope for ILRS	14MS3-MN-21
10.40–11.00	Denis LISOV et al	In-flight selection of landing site for lunar polar lander	14MS3-MN-22
11.00–11.20	Tatiana TOMILINA et al	Laboratory Testing for ISRU of Regolith by SLM technology	14MS3-MN-23
11.20–11.40	Lev ZELENYY et al	Russian Lunar Program: Difficult beginning	14MS3-MN-24

11.40–12.00

COFFEE-BREAK

12.00–18.40

3

VENUS SESSION

Convener: **Ludmila ZASOVA**
conference hall, second floor

12.00–12.20	Lev ZELENYY et al	Venera-D Mission Update	14MS3-VN-01
12.20–12.40	Takehiko SATOH et al	Updates of Akatsuki Venus Orbiter	14MS3-VN-02
12.40–13.00	Igor KHATUNTSEV et al	Twelve years cycle in the cloud top winds on Venus	14MS3-VN-03

13.00–14.00

LUNCH

14.00–14.20	Ludmila ZASOVA et al	Some peculiarities of the Venusian mesosphere dynamics	14MS3-VN-04
14.20–14.40	Mikhail LUGININ et al	Retrieval of upper haze aerosol properties at Venus from SPICAV–UV and –IR data	14MS3-VN-05
14.40–15.00	Daria EVDOKIMOVA et al	Venus lower cloud variations by SPICAV-IR/VEX night emission observations and supplemented radiative transfer model	14MS3-VN-06
15.00–15.20	Evgenij ZUBKO and Y. J. LEE	Retrieving microphysics of aerosols in the atmosphere of Venus using the glory phenomenon	14MS3-VN-07

15.20–15.40	Mikhail IVANOV and James HEAD	Morphological and topographical groups of large volcanoes on Venus	14MS3-VN-08
15.40–16.00	Piero D'INCECCO et al	Introducing the "Analogues for VENUS' GEologically Recent Surfaces" initiative: an opportunity for identifying and analyzing recently active volcano-tectonic areas of Venus through a comparative study with Terrestrial analogs	14MS3-VN-09
16.00–16.20	COFFEE-BREAK		
16.20–16.40	Denis BELYAEV et al	Scientific concept of VOLNA experiment to study spectroscopy of Venus atmosphere	14MS3-VN-10
16.40–17.00	Pavel KLIMOV et al	SONET scientific equipment for the Venera-D project	14MS3-VN-11
17.00–17.20	Piero D'INCECCO et al	The Campo Imperatore ADvanced VENUS' Night Airglows Near-infrared Telescope (ADVENANT) Project as a ground-based segment for future missions to Venus	14MS3-VN-12
17.20–17.40	Dargilan Oliveira AMORIM and Tamara GUDKOVA	Earth-like viscoelastic models of Venus interior structure	14MS3-VN-13
17.40–18.40	POSTER SESSION, SESSION VENUS		
	12 posters * 5 min		
17.40–17.45	Marina PATSAEVA et al	Influence of the underlying surface on the zonal and meridional speed at the cloud top level near noon from VMC/Venus Express and UVI/Akatsuki images	14MS3-VN-PS-01
17.45–17.50	Artem NEPOP et al	Study of aerosol properties in the Venus' upper haze from SOIR data	14MS3-VN-PS-02
17.50–17.55	Elizaveta FEDOROVA et al	Study of the HDO/H ₂ O isotope ratio in the mesosphere of Venus based on SOIR observations for 2006–2014	14MS3-VN-PS-03
17.55–18.00	Imant VINOGRADOV et al	Optical design of a high-resolution IR spectrometer ISCRA-V for the Venera-D mission	14MS3-VN-PS-04
18.00–18.05	Vladislav ZUBKO et al	Study of flight scenarios to Venus followed by a passage of an asteroid	14MS3-VN-PS-05
18.05–18.10	Dmitry MOISEENKO et al	Venus in solar wind: scientific goals and concepts of plasma analyzers for Venera-D mission	14MS3-VN-PS-06

18.10–18.15	Vladimir GUBENKO and I.A. KIRILLOVICH	Comparison of internal wave characteristics in the Venus's atmosphere deduced by two independent methods from the Magellan radio occultation measurements	14MS3-VN-PS-07
18.15–18.20	Evgeniya GUSEVA and Mikhail IVANOV	Coronae of Venus: topography and volcanic productivity	14MS3-VN-PS-08
18.20–18.25	Ivan BORONIN and Tamara GUDKOVA	Computer realization of algorithm for inversion of Venusian interiors based on Monte Carlo method: 1. testing on classical example of gravitational field data	14MS3-VN-PS-09
18.25–18.30	Tamara GUDKOVA and Alexey BATOV	On stress state of Venus	14MS3-VN-PS-10
18.30–18.35	Valery KOTOV	Motion of Venus and Earth, and Fibonacci numbers	14MS3-VN-PS-11
18.35–18.40	Natalia BULATOVA	Cosmic rays are initiators of strong earthquakes	14MS3-VN-PS-12

10.00–18.50

4

SMALL BODIES SESSION

including cosmic dust

Conveners: **Alexander BASILEVSKY**, **Alexander ZAKHAROV**
conference hall, second floor

10.00–10.20	Vacheslav EMEL'YANENKO	The origin of distant trans-Neptunian objects	14MS3-SB-01
10.20–10.40	Vladislav GUSEV and Eduard KUZNETSOV	The accuracy of methods for estimating the ages of pairs of trans-Neptunian objects in close orbits	14MS3-SB-02
10.40–11.00	Vladimir BUSAREV et al	Spectral signs and probable mechanisms of optically thin and thick dusty exosphere of active asteroids	14MS3-SB-03
11.00–11.20	Tatyana GALUSHINA et al	The study of mean motion resonance multiplet for near-Sun asteroids	14MS3-SB-04
11.20–11.40	Alexander MELNIKOV and K.S. LOBANOVA	On perturbations in the rotational motion of the asteroid (99942) Apophis during its 2029 Earth encounter	14MS3-SB-05

11.40–12.00

COFFEE-BREAK

12.00–12.20	Evgenij ZUBKO and G. VIDEEN	What we can learn about dust in comets from their polarimetry <i>/Invited talk/</i>	14MS3-SB-06
12.20–12.40	Wentao LUO et al	The 2.5 meter Wide Field Survey Telescope (WFST) design and hunting for NEOs	14MS3-SB-07
12.40–13.00	Dominik BELOUSOV and A.K. PAVLOV	Distant cometary outbursts: a non-gravitational mechanism of orbit perturbation	14MS3-SB-08

13.00–14.00

LUNCH

14.00–14.15	Ilia KUZNETSOV et al	UV-influence on dust particles electrostatic lift-off processes in experimental set-up	14MS3-SB-09
14.15–14.30	Valentin BORZOSEKOV et al	Microwave discharge experiments on samples of a meteorite substance and lunar regolith simulants for plasma-dust cloud modelling	14MS3-SB-10

14.30–14.45	Tatyana GAYANOVA et al	Simulation experiments on the deposition of charged particles of LMS-1D regolith on the solar panels of spacecraft	14MS3-SB-11
14.45–15.00	Yulia IZVEKOVA et al	Specific features of dusty plasma and wave processes in the exosphere of Mercury	14MS3-SB-12
15.00–15.15	Sergey POPEL and Lev ZELENYYI	Manifestations of anomalous dissipation in dusty plasmas of our Solar system: celestial bodies without atmosphere	14MS3-SB-13
15.15–15.30	Yulia REZNICHENKO et al	Dusty plasma clouds in the atmosphere of Mars: significance of Rayleigh-Taylor instability	14MS3-SB-14
15.30–15.45	Olga POPOVA et al	Energy release of large impactors in the terrestrial atmosphere	14MS3-SB-15
15.45–16.00	Sergei IPATOV	Migration of bodies ejected from the Earth and the Moon	14MS3-SB-16
16.00–16.15	COFFEE-BREAK		
16.15–16.30	Tatiana SALNIKOVA and E.I. KUGUSHEV	Possibility of space debris escape from the Earth – Moon system	14MS3-SB-17
16.30–16.45	Roman ZOLOTAREV and Boris SHUSTOV	On the dynamics of meteoroid streams originating from NEA collisions	14MS3-SB-18
16.45–17.00	Nikolai KISELEV et al	Polarimetry of NEAs at the Crimean astrophysical observatory and the Peak Terskol observatory in 2019–2023	14MS3-SB-19
17.00–17.15	Alexander SAMOKHIN et al	About the GTOC XII problem	14MS3-SB-20
17.15–17.30	Anton SOKOLOV et al	Mapping of Hyperion in the triaxial ellipsoid projections	14MS3-SB-21
17.30–17.45	Vladimir TCHERNYYI et al	Saturn's magnetism in the origin of dense rings and in their peculiarities recorded by the Cassini probe. The Tchernyi-Kapranov effect	14MS3-SB-22
17.45–18.00	Philipp VYSIKAYLO	Vysikaylo' cumulative plasma cannon on the protection of the Earth from meteoroids	14MS3-SB-23

18.00–18.50

POSTER SESSION, SESSION SMALL BODIES (INCLUDING COSMIC DUST)

10 posters * 5 min

18.00–18.05	Mohammad MADANI	An overview of Pluto's atmospheric studies	14MS3-SB-PS-01
18.05–18.10	Dmitriy SHOKHRIN et al	2D-description of nonlinear wave perturbations in the dusty magnetosphere of Saturn	14MS3-SB-PS-02
18.10–18.15	Marina SHCHERBINA et al	Gaia Data Release 3: distribution by spectral groups of near-Earth asteroids	14MS3-SB-PS-03
18.15–18.20	Elena PETROVA	On the evaluation possibility for the properties of the exosphere of an active asteroid from polarimetric data	14MS3-SB-PS-04
18.20–18.25	Tatiana MOROZOVA and Sergey POPEL	Instabilities in meteoroid tails associated with ion acoustic mode	14MS3-SB-PS-05
18.25–18.30	Tatiana MOROZOVA and Sergey POPEL	Manifestations of modulation instability in meteoroid tails	14MS3-SB-PS-06
18.30–18.35	Maksim KHOVRICHEV and D.A. BIKULOVA	Calculation of the non-gravitational A2 parameter using ground-based observations of the apparent close approaches between near-earth asteroids and Gaia stars	14MS3-SB-PS-07
18.35–18.40	Mariia VASILEVA and Eduard KUZNETSOV	Asteroid cluster of (338073) 2002 PY38: membership and age estimation	14MS3-SB-PS-08
18.40–18.45	Vladimir EFREMOV et al	Application of the small meteors ablation model to Perseid meteors	14MS3-SB-PS-09
18.45–18.50	Vladislav ZUBKO et al	Concept of planetary defense system using a projectile asteroid	14MS3-SB-PS-10

19.00–21.00

RECEPTION

10.00–15.50

5

EXTRASOLAR PLANETS SESSION

Convener: **Alexander TAVROV**
room 200, second floor

10.00–10.20	Ildar SHAIKHISLAMOV et al	Modelling absorption in lines of hydrogen and oxygen of Super-Hot massive Jupiter Kelt9b	14MS3-EP-01
10.20–10.40	Marina RUMENSKIKH et al	The emission spectrum of the host star and transit absorptions of Hot Jupiters in the metastable helium line	14MS3-EP-02
10.40–11.00	Olga OLEJNIK and Vacheslav EMEL'YANENKO	The role of Earth-mass planets in the origin of debris disks	14MS3-EP-03
11.00–11.20	Boris KONDRATYEV et al	Modified method of round Gaussian rings. Application to the two-planetary problem	14MS3-EP-04
11.20–11.40	Arina SIMONOVA and Valery SHEMATOVICH	Calculation of thermal atmospheric loss for a Hot exoplanet on elliptic orbit	14MS3-EP-05

11.40–12.00 COFFEE-BREAK

12.00–12.20	Anastasia AVTAEVA and Valery SHEMATOVICH	Kinetic model of the effect of stellar wind on the extended hydrogen atmosphere of the exoplanet π Men c	14MS3-EP-06
12.20–12.40	Vladislava ANANYEVA et al	The refined method for taking into account observational selection for planets detected by the radial velocity technique	14MS3-EP-07
12.40–13.00	Yisi LIU and Volker PERDELWITZ	One reliable method for stellar parameter determination based on space photometry and the PHOENIX spectral library	14MS3-EP-08

13.00–14.00 LUNCH

14.00–14.20	Anastasiia IVANOVA et al	Telluric absorption correction and radial velocity method	14MS3-EP-09
14.20–14.40	Artem SHEPELIN et al	Statistical equilibrium code for exoplanet atmospheres simulations	14MS3-EP-10
14.40–15.00	Sergei IPATOV	Mixing of planetesimals in the Glisse 581 planetary system	14MS3-EP-11
15.00–15.20	Eduard KUZNETSOV and A.S. PERMINOV	Investigation of dynamic evolution of the compact planetary system Kepler-51	14MS3-EP-12

15.20–15.50

POSTER SESSION, SESSION EXTRASOLAR PLANETS

6 posters * 5 min

15.20–15.25	Ilia MIROSHNICHENKO et al	Simulation of absorption in the H α line of exoplanet KELT-9b	14MS3-EP-PS-01
15.25–15.30	Maksim GOLUBOVSKY et al	Oxygen 777.4 nm triplet absorption simulation in KELT-9b atmosphere	14MS3-EP-PS-02
15.30–15.35	Stanislav SHARIPOV et al	Simulation of H α absorption for hot Jupiter WASP-12b	14MS3-EP-PS-03
15.35–15.40	Artem BEREZUTSKY et al	3D aeronomy of the HD 63433 system planets and absorption in Ly α line	14MS3-EP-PS-04
15.40–15.45	Ailar ALIZADEHSABEGH	Planetary Mass-Radius Relation	14MS3-EP-PS-05
15.45–15.50	Esfandiar JAHANGIRI	Ephemeris Updates for Seven Selected HATNet Survey Transiting Exoplanets	14MS3-EP-PS-06

16.00–16.20

COFFEE-BREAK

10.00–17.00

6 ASTROBIOLOGY SESSION

Convener: **Oleg KOTSYURBENKO**
conference hall, second floor

10.00–10.20	Vladimir KOMPANICHENKO	Concept of thermodynamic inversion as a model of the origin of life on planets and satellites	14MS3-AB-01
10.20–10.40	Valery SHEMATOVICH et al	Non-thermal nitric oxide formation in polar regions of N ₂ –O ₂ atmospheres	14MS3-AB-02
10.40–11.00	Sergey BULAT et al	Searching for extraterrestrial thermophiles on icy moons with subglacial oceans?	14MS3-AB-03
11.00–11.20	Alexander GURIDOV et al	Resistance of bacteria <i>Bacillus licheniformis</i> of “EXPOSE-R2” space experiment to the extreme space factors	14MS3-AB-04
11.20–11.40	Daniil MIRONOV et al	Development of biomining technology using <i>Aspergillus niger</i> : application to the Lunar program	14MS3-AB-05
11.40–12.00	COFFEE-BREAK		
12.00–12.20	Elena DESHEVAYA et al	Planetary protection of Mars in missions for searching possible life forms	14MS3-AB-06
12.20–12.40	Elena DESHEVAYA et al	Survival of microorganisms over two years of exposure in the near-ISS space	14MS3-AB-07
12.40–13.00	Vyacheslav ILYIN and S.V.PODDUBKO	Exobiological studies in the interests of ensuring planetary quarantine	14MS3-AB-08
13.00–14.00	LUNCH		
14.00–14.20	Sohan JHEETA	Irradiation of Methyl Cyanide (CH ₃ CN) with 200 keV at 15 K temperature	14MS3-AB-09
14.20–14.40	Oleg KOTSYURBENKO	Main directions and prospects for the development of astrobiology in Russia	14MS3-AB-10
14.40–15.00	Ximena ABREVAYA et al	Astrophysical sources of radiation and habitability in the universe	14MS3-AB-11
15.00–15.20	Richard B. HOOVER and Alexey ROZANOV	Life in the universe: extraterrestrial water, cyanobacteria and diatoms	14MS3-AB-12
15.20–15.40	Andrey B. RUBIN et al	Strategy for using fluorimetric methods in the search for extraterrestrial life forms	14MS3-AB-13
15.40–16.00	Ivan KONYUKHOV et al	Using fluorimetric methods to search for extraterrestrial photosynthetic organisms	14MS3-AB-14
16.00–16.20	COFFEE-BREAK		

16.20–17.00

POSTER SESSION, SESSION ASTROBIOLOGY

4 posters * 10 min

16.20–16.30	Daniil BARBASHIN et al	Bacterial tolerance to the influence of sodium perchlorate: estimation in extreme ecotopes communities	14MS3-AB-PS-01
16.30–16.40	Marina GRINBERG et al	Effect of low intensity ionizing radiation and magnetic fields on the functional status of plants	14MS3-AB-PS-02
16.40–16.50	Mehdi KHODADADILORI	2D and 3D parameter relationships for W UMa-type systems revisited	14MS3-AB-PS-03
16.50–17.00	Alexander SAFRONOV	Scanning for habitable stellar systems on behalf of future space missions	14MS3-AB-PS-04